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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/806,060

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EXAMINER

STOUFFER, KELLY M

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

04/11/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/806,060	Applicant(s) RICHERT ET AL.	
	Examiner KELLY STOUFFER	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/26/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 31 July 2007 has been entered.

Response to Arguments

Applicant's arguments filed 31 July 2007 have been fully considered but they are not persuasive. The applicant argues that although differences in pressure of the buffer chamber are not in the claims, they should be used to show nonobviousness. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). If the applicant wishes to have the differences in pressure used in teaching over the current rejection, the limitations should be present in the claims. Currently, they are not and are beyond the scope of the examined claims and hence this argument is moot. The isolation chambers of Love function as a buffer chamber, at least as broadly as it is claimed, as discussed in Love column 10 line 41-column 12 line

24, namely buffering pressure changes between the entrance or exit chamber and the coating chamber in column 11 lines 15-20.

The applicant further argues that Love does not disclose opening and closing doors. There would be no purpose for Love having doors if they could not be opened and closed. See also Love column 7 et seq, column 4 lines 3-24 and column 11 lines 3-20.

The applicant further argues that the examiner has no evidence the chambers are of the same size. However, the limitation that they are the same size is not present in the claims; rather it is just that the chambers are developed as identical modules for receiving substrates, which is a much broader and indefinite limitation. However, the figures do show a gas pipe, that is straight, next to the chambers - showing that their diameter and hence size is identical if that is indeed what is meant in the claims.

With respect to the applicant regarding the combination of Shinohara with Love, it is unclear what the applicant is arguing. Along with the various responses to this argument in previous office actions, the rejection is made over Love in view of Shinohara because, as was stated in previous office actions, one would want to use a substrate larger than the transfer chamber or buffer chamber or a buffer and transfer chamber that are of the same size as taught by Shinohara et al. in the process of Love in order to continuously coat a large substrate. This motivation is found in Shinohara as was cited in previous actions. Motivation for a *prima facie* case of obviousness need not be found in all references of the combination. Love does teach using glass plates

as a substrate in its abstract, which are usually long ribbons of glass in industry, further strengthening the combination.

Therefore, the rejections of the previous office action are maintained and repeated here.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 11 recites the limitation of having transfer and buffer chambers developed as identical modules, but based upon the current arguments, it is clear that identical is indeed a relative term. The instant arguments use identical to mean that the size of the chambers is the same, but also argue that the pressure in the chambers are different - making the chambers not identical with respect to pressure. Clarification of the term in claim 11 is required. Claims 12-20 are rejected as being dependant upon a base claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 1792

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 11- 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent number 4274936 to Love in view of US publication 2002/0020496 to Shinohara et al.

Regarding claim 11, Love discloses a method for the operation of a an in-line coating installation having an inward transfer chamber, buffer chamber, process chamber, buffer chamber, and outward transfer chamber with gates between the

Art Unit: 1792

chambers that can be opened and closed. (Described as entrance and exit chambers, coating chambers and isolation chambers in column 5 lines 25-43.) The gates between the two buffer chambers and their respective adjacent inward and outward transfer chambers are opened and the pressure conditions are adapted to one another during the method disclosed by Love (column 4 lines 3-24 and column 11 lines 3-20). The substrate of Love is also of a specified maximum size (abstract). Love teaches glass substrates in the abstract. Love does not disclose a substrate larger than the transfer chamber or buffer chamber or a buffer and transfer chamber that are of the same size. Shinohara et al. uses a similar procedure and apparatus as Love (Shinohara et al. does not use physical but separates the chambers with gas outlets that may be considered gates at least as broadly described by claim 11), and teaches transfer chambers 407 and 410 that are of the same size of buffer chambers 408a and 408b in Figure 4 with a substrate large enough to require the transfer and buffer chambers to be open to one another in order to continuously coat a large substrate (paragraphs 0004-0005 et seq.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Love to include a substrate larger than the transfer chamber or buffer chamber or a buffer and transfer chamber that are of the same size as taught by Shinohara et al. in order to continuously coat a large substrate.

Regarding claim 12, Shinohara et al. has a conveying system for the substrate that has a constant rate throughout the chambers (as the substrate is so large it is inherent), and Love discloses each chamber having its own transportation system (column 10 lines 8-40).

With regard to claim 13, Love shows a process chamber 2 with a left and right boundary formed by slit diaphragms 90 and 110 in Figure 1.

With regard to claim 14, the sequence of opening and closing of valves is disclosed by Love in the section labeled "Operation" in columns 13-18 et seq. One of ordinary skill in the art would recognize that if the substrate was larger than either of the transfer or buffer chambers, that valve would have to be open to process the substrate in those chambers, as taught by Shinohara et al. above.

Regarding claim 15, Love discloses pumps associated with the inward transfer chamber that pump the chamber from atmospheric pressure to a lower pressure with roughing pumps (column 8 et seq) and pumps associated with the buffer chamber that pump the chamber closer to the pressure of the coating chamber (the absolute pressure of the system in column 11 lines 21-40).

Regarding claim 16, Love discloses the first pressure to be below 500 microns in column 8, with is approximately 7 mbar when converting units, and 0.01-0.001 microns in column 11 lines 21-40 which is approximately 0.05 mbar.

Regarding claims 17 and 18, Shinohara et al. shows the same transportation arrangements and rates as discussed above for both the transfer and buffer chambers.

Regarding claims 19 and 20, Love discloses controlling pressures and opening and closing gates with a control and manifolds in the abstract, column 6 lines 19-37, column 7 lines 56-62 and other locations throughout the document.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KELLY STOUFFER whose telephone number is (571)272-2668. The examiner can normally be reached on Monday - Thursday 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kelly Stouffer
Examiner
Art Unit 1792

kms

/Timothy H Meeks/
Supervisory Patent Examiner, Art Unit 1792